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THE PROGRESS AND RESOURCES

OF

NEW SOUTH WALES.

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BY

CHARLES ROBINSON, Esq.,
SECRETARY TO THE COMMISSION,
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PREFACE.

THE following description of New South Wales, its Progress and Resources, was compiled at the close of the International Exhibition, held at Philadelphia, in 1876, pursuant to the request of the Commissioners for Great Britain and Ireland, and, together with the Catalogue of the New South Wales Exhibits, was published as a sub-report of the Imperial Commission.

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THE PROGRESS AND RESOURCES

OF

NEW SOUTH WALES.

NEW SOUTH WALES was the first British Colony planted in Australia. Its boundaries extended along the whole of the eastern coast of the island, and included all the territory lying between the Pacific Ocean and the 135th degree of east longitude. In the progress of settlement it became expedient to subdivide this extensive area, and to call into existence the Colonies of Tasmania, Victoria, and Queensland. Remote from the seat of government, and almost excluded from traffic and intercourse with the civilized populations of the globe, the progress made by the pioneers of colonization was slow; and, prior to the discovery of gold in New South Wales, in 1851, the total European population of the continent was less than 300,000 souls. From that time the occupation and improvement of the country have been accelerated, and Australia has now become the home of upwards of 2,300,000 thriving and contented people. The aggregate revenue of her Governments, in 1875, was £11,264,646, and the value of her trade £77,822,042. An area of 3,480,297 acres had been brought under cultivation, and the live stock, almost wholly supported by the natural pasturage of the country, included 52,000,000 sheep, 6,389,000 horned cattle, 835,393 horses, and 549,808 pigs. There had been constructed 1,666 miles of railway, 21,616 miles of telegraph, and many large public works for the improvement of the country.

Of the estimated area of Australia (3,000,000 square miles), New South Wales includes 323,437 square miles, or less than one-tenth of the entire surface. Its eastern boundary, extending from Cape Howe in 37° 28′ to Point Danger in 28° 10′ south latitude, is washed by the Pacific Ocean. Queensland bounds the Colony on the north, South Australia on the west, and Victoria on the south-west. The coast line is formed of rugged promontories, rounded bays, and precipitous cliffs of sandstone. The indentations are nowhere strongly marked, but there are numerous capacious harbours for shipping, some of them almost unrivalled for their facility of access, their great extent, natural beauty, and perfect safety. Of these, Port Jackson, on whose shores the city of Sydney has been built, is pre-eminent; and that of Newcastle, at the mouth of the Hunter River, is as well known, by reason of its large coal trade in the southern hemisphere, as is Newcastle-upon-Tyne in the northern. Among other commodious havens for shipping, Twofold Bay and Jervis Bay, to the south of Sydney, may be named; and to the north of it are Broken Bay, Port Stephens, Trial Bay, the estuaries of the Clarence, the Richmond, the Manning, and other rivers. Sand-bars occur near the entrances to most of the rivers, but the impediments which exist to navigation are such as may be removed by the construction of breakwaters and by the employment of dredges whenever the exigencies of the local trade shall justify the carrying out of such improvements.

A chain of mountains, commonly described as the Main Dividing Range, runs almost parallel with the coast—distant from it in some places not more than 25 miles, while in others it recedes about 120 miles. Its peaks attain their highest altitude (7,000 feet)

in the south, but the general elevation above the sea level is not more than from 2,000 to 3,000 feet. These mountains determine the watershed of the country. They intercept in great measure the rain clouds which drift from the south and east; and hence it is that the rainfall in the eastern slope averages from 50 to 60 inches per annum, while to the west of the Main Range it is uncertain, and often does not exceed 20 inches. The streams flowing eastward are comparatively small, and as they have but little fall, the adjacent valleys are subject to inundation in times of heavy rain. The Hawkesbury, the Clarence, and the Richmond are navigable for a distance of 50 miles and upwards, but not for ships of heavy tonnage. Tracts of country, more particularly the district of Illawarra and along the banks of the northern rivers, were densely covered with forests of cedar and other woods of great economic value, while climbing vines, arborescent ferns, and stately palms, also occurred in tropical luxuriance.

Ship-building is carried on at the mouths of some of the rivers. Upon a large portion of the cleared land lying between the mountains and the ocean, maize, wheat, lucerne, and the sugar-cane are cultivated; while the orange and the grape-vine, the apple, peach, nectarine, plum, almond, banana, in nearly all their varieties, and many other edible fruits, are grown in the vicinity of the towns, and reward the labour of the horticulturist with abundant crops. A considerable portion of the mountain country offers a tempting field for mining exploration. The rugged grandeur of much of it cannot fail to inspire feelings of admiration and even awe in the mind of the spectator, but its barrenness and comparative inaccessibility forbid the approach of the agricultural

settler. There are, however, very extensive tracts of fertile soil upon the table-land and immediately to the west of it. The districts in which are situate Tumut, Young, Orange, Mudgee, Tamworth, and Armidale, are probably destined to become thickly peopled centres of farming industry. Wheat, oats, barley, and other cereals, flourish in these regions. Leaving the mountain heights, and going westward, the forests give place to thinly-timbered country and treeless plains. This wide territory is watered chiefly by the Murray, the Murrumbidgee, the Lachlan, and the Darling Rivers. The Murray is navigable for several hundred miles by steamers of very light draught of water, and during portions of the year they can run eastward up to the Murrumbidgee as far as Wagga Wagga, and in a north-easterly direction up the Darling as far as Bourke. The country towards the extreme west of the Colony becomes very arid, the result of a diminishing rainfall and excessive evaporation. Nearly the whole of this territory, however, is now stocked with sheep and cattle, which fatten upon the saline herbage, even after the grass has been burnt up by the parching heat of summer. The mean temperature of Sydney, which is centrally situated on the coast, is 62·4, the variation in the annual temperature being only from 59·8 to 64·3, a difference of 4·5, as compared with 8·0 in London; and the extreme range of the shade thermometer at Sydney is from 106·6 to 36·0 or 70·6, while in London it is from 97·0 to 5·0, a difference of 92·0. The climate of Sydney resembles very nearly that of Lisbon or Naples, the extremes of heat and cold being 5° less at Sydney than at Naples. It is thought that the equable temperature which prevails along the coast region of New South Wales is partly owing to the influence of the warm ocean current, which flows in a

southerly direction, parallel with the coast, and at a distance of four or five miles from it. The number of days on which rain falls at different places along the eastern slope averages from 100 to 150 in the year.

The population of New South Wales at the close of 1875 was estimated at 606,652. The last Census was taken in the year 1871, when the population was 503,981, more than ninety-six per cent. of the whole being British-born, and more than sixty-one per cent. being born in the Australian Colonies. The inequality of the sexes, which is apt to exist in all newly settled countries, is every year becoming less observable in New South Wales. The males at the last Census were 275,551, and the females 228,430. Of the total population, 41·71 per cent. were under the age of 15; 56·17 per cent. were between the ages of 15 and 65 years, which are thought to correspond with 20 and 60 respectively in the United Kingdom; and 2·12 per cent. were older than 65. It will thus be seen that out of every 10,000 persons comprising the population at the date of the last Census, 5,620 would be classed as producers and 4,380 as non-effective. With the growth of the community and the increase of family life, it is found that the proportion of non-effectives (a class largely consisting of infants) increases, and that the relative proportion of these classes more nearly resembles that of England than was the case a few years ago. Were New South Wales to become as densely populated as England is, the Colony would contain upwards of 100,000,000 inhabitants. There is a strong tendency in the population to concentrate upon towns more so than is the case in older countries. In 1871, the inhabitants of towns and villages numbered 234,162, and of the rural districts

267,417 ; while of the total population it was found that 134,736, or 26·73 per cent., were resident in Sydney and its suburbs. The average density of the population in the settled districts was 9·37 persons to the square mile. Including the whole area of occupied country, it was only 1·64, while in the county of Cumberland the returns show an average of 105·39 to the square mile. The number of dwelling-houses was 93,690, the proportion of occupants being 5·11 to each. In England the summer months are most prolific in births, and the winter months most fatal to life ; but in New South Wales the greatest number of births occur in the winter, and of deaths in the summer quarter of the year. The ratio of marriages in 1874 to every 1,000 persons living was 7·60 ; of births, 38·87 ; and of deaths, 15·16. The deaths of children under five years of age amounted to 43·85 per cent. of the total mortality. The educational returns of the last Census showed that 70·33 per cent. of the population could read and write, that 12·94 per cent. could read only, and that 16·73 per cent. were wholly illiterate.

Much of the progress of New South Wales is due to the suitability of the climate for the production of fine wool, and the pastoral industry still contributes more largely to the support of manufactures and the extension of commerce than any other. The narrow tract lying between the sea and the mountains is better adapted for depasturing long coarse-woolled sheep, and there the Lincoln, Leicester, and Cotswold breeds are found. The table-lands and western plains are almost wholly stocked with merinos and Saxon merinos, descended from the flocks of Germany, France, and Spain. The process of acclimatisation has modified the type of the

Spanish merino. There has been a decided gain in the softness of the wool and an improvement in its elasticity; but, while it has increased in length, it has diminished in density, so that the weight of the fleece remains about the same. The increase of the merino sheep has been great and continuous; and, having much variety of soil and climate, New South Wales can produce in perfection all the kinds of wool which manufacturers may require, from the very finest clothing suitable for broad-cloths to the silky lustrous combing wool now in demand for the production of merinos, delaines, and other delicate fabrics. Nearly one-half of the total number of sheep in Australia are depastured within the limits of New South Wales; and estimating the average weight of washed wool at 3 lbs. per fleece, the clip of New South Wales flocks for 1876 would amount to 73,147,608 lbs. Sixty-three samples of wool were shown in the New South Wales Court at the Exhibition. These were classified in their order of fineness of staple; the earlier numbers being from sheep bred on the western slopes of the Main Dividing Range; and the later from sheep fed upon the more succulent herbage of the interior plains, showing the deeper grown and stronger staple which these pastures tend to produce. The limit of possible production has not yet been reached. The increase has been threefold during the last decade; and an experienced pastoralist estimates that, with favourable seasons and a continuance of remunerative prices for wool in the English market, the flocks of New South Wales ten years hence will reach an aggregate of from forty to fifty millions. Official returns of live stock show that on the 31st of March, 1876, there were 357,696 horses, 3,134,086 horned cattle, and 24,382,536 sheep. The Customs returns for 1874 state that the exports of the

principal pastoral products—wool, live stock, preserved meats, hides, and leather—amounted in value to upwards of £6,200,000.

Among the vegetable products and manufactures exhibited at Philadelphia were—wheat and flour, maize and maizena, arrowroot, farm seeds, wine, sugar, oranges, and preserved fruits. All the different branches of husbandry followed in Europe may be carried on under equally favourable conditions in New South Wales, and some parts of the Colony are fitted for the growth of semi-tropical products. Snow is of rare occurrence, excepting on the Southern Alps and occasionally on the mountain plateaux; and, viewing the country as a whole, there are few localities in which it is absolutely necessary that live stock should be housed, or that special provision should be made to feed them during the winter months. One of the chief hindrances to agriculture has lain in the cost of transporting produce from lands in the interior to the seaboard. Railways have now been made to the verge of the districts considered most suitable for the growth of cereals; and it may be expected, therefore, that additional impetus will be given to the cultivation of the soil. The average production of wheat is about 20 bushels to the acre, and of maize about 30 bushels; 60 lbs. to 64 lbs. per bushel are not unusual weights for wheat, and from 60 lbs. to 66 lbs. for maize. As the roots of large trees are suffered to remain in the ground, the yield per acre over a large area of only partly cleared land must be proportionately less than in older countries, where the whole available surface is brought under tillage. In exceptionally fertile soils, 120 bushels of maize have been obtained as a first crop, and with good farming, an average of 60 bushels per acre can be

secured on first class soils. The cultivation of the sugar-cane is comparatively a new industry. It has been entered upon on the northern rivers, and on the Clarence one Company has established three mills, having an aggregate manufacturing capacity of 7,000 tons during the season. The produce of the crop for 1875 amounted to 15,355,648 lbs. Cotton has been grown, but has not proved remunerative; and while a large extent of country is suitable for the growth of tobacco, the manufacture of the home-grown leaf is not sufficiently well understood to enable the agriculturist to supersede the importation of foreign-grown leaf, which brings the highest prices in the Australian markets. There is scarcely a district in which the grape-vine does not flourish; and there is reason to suppose that the production of wine will become one of the great industries of the Country. Dr. Lindemann remarks:—"The soil and climate of many parts of New South Wales are eminently adapted to viticulture; from the Murray in the south to the Clarence in the north there are few places where the vine will not flourish, yielding wines in great variety and of rare quality. Many of the wines grown on the Murray are rich and alcoholic, surpassing in these qualities the wines of Portugal; while others, with their soft luscious fulness and delicate flavour, rival the first growths of the far-famed Constantia. Again, the wines grown upon the Hunter and more northern rivers are light, dry, and fragrant, bearing close resemblance to the sauternes, clarets, and burgundies of France. And there can be little doubt that the produce of the vine in the not very distant future will become a valuable export." The quality of the manufacture has steadily improved. The produce for 1875 was 684,258 gallons, and the total produce of the vineyards would include about 2,000

gallons of brandy and upwards of 1,000 tons of fruit for home consumption and export to the adjoining Colonies. The value of oranges exported exceeds £50,000 per annum; and there is a large extent of country in which the cultivation of this fruit has been most successful. The export of maize in 1874 exceeded 1,000,000 bushels; and of wheat and flour the balance of imports over exports was of the value of £186,732. The extent of land under cultivation on the 31st of March, 1875, was 464,958 acres, and the extent enclosed (exclusive of pastoral holdings) but not cultivated was 6,098,988 acres.

Two very excellent samples of silk cocoons were shown. Many varieties of the silkworm have been acclimatised, and the ailanthus and the mulberry trees have become general. The experience which has been gained indicates that the Colony possesses every climatic advantage requisite for the production of silk. Sericulture, however, cannot yet be said to exist as a colonial industry.

The geological survey of New South Wales has only recently been commenced, and it is not possible therefore to estimate otherwise than approximately the extent and value of her mineral deposits. Coal was the first mineral to attract attention. The approximate area of the carboniferous strata is estimated at 24,840 square miles. The principal coal beds exist along the coast to the north and south of Sydney. The mines first opened are situate in the immediate vicinity of Newcastle, and it is from there that the Colony obtains its largest supply. The coal lies near the surface, and the greatest depth to which shafts have yet been sunk is less than 500 feet. In many districts the coal crops out on the face of the hills, and can be cheaply got by driving tunnels. The

cost of mining is from 3s. to 5s. 6d. per ton. The coal-shipping facilities at Newcastle are by staiths and steam cranes, whose total loading capabilities have been increased to 12,300 tons per diem. Experiments with the New South Wales coal at the Royal Arsenal, Woolwich, in 1858 and 1859, showed that for steam purposes it was only seven per cent. inferior to the best Welsh coal; and that, as regards the manufacture of gas, it produces upwards of 9,000 feet per ton, with an illuminating power twenty-four per cent. greater than the English variety known at Whitworth. The Government Director of the Indian Railway Co's., in his Report to the Secretary of State for India (1868-9), refers to the quality of Australian coal. He says: "It has been tried on some of the lines of Western India, and has been well reported on. The experience of the Locomotive Superintendent of the Scinde Co. is, that it is equal to Welsh coal in all respects; its evaporation power is nearly equal to Welsh coal, and the consumption per mile is less. The price hitherto has been under that of English Welsh coal." The Government Examiner of Coal Fields (Mr. John Mackenzie, F.G.S.) estimates that one seam of coal, after allowing one-third for loss and waste in getting, will yield 84,208,298,667 tons. It has been ascertained by the Rev. W. B. Clarke and the Examiner of Coal Fields that there are in the upper coal measures at least sixteen seams of coal, each more than 3 feet thick. One seam whose out-crop is near Stroud, described by the late Mr. W. Keene, is more than 30 feet thick, as tested by several trial pits sunk on the dip side; and another, whose outcrop is near Wallerawang, recently examined by Archibald Liversidge, Esq., Professor of Geology in the University of Sydney, is 17 feet 6 inches thick. The principal seam from which coal is now being obtained is

from 8 to 10 feet thick, the coal being free-burning and bituminous,—suitable for household, steam, smelting, gas, and blacksmiths' purposes. Mr. R. W. Moody, mining engineer, gives the following description of coal land on the south-eastern coast:—"The five seams of coal contained in this 600 acres will yield 31,250,000 tons of coal, which will supply a vend of 1,000 tons a day for over 100 years; and this is independent of the exceedingly rich bed of kerosene oil shale, which is sufficient to yield 2,000 gallons of refined oil per week for over seventy-two years. The position of all the seams is so favourably situated that the coal from each can be got by tunnelling into the mountain range, and conveyed to the proposed railway terminus below by self-acting inclined planes." Writing of the upper coal measures in the Western district, the Government Geologist (C. S. Wilkinson, Esq., F.G.S.) says:. "They are 480 feet thick, resting conformably on the marine beds of the lower coal measures, and overlaid by more than 500 feet of Hawkesbury sandstone. Eleven seams of coal have been counted in them; the lowest, which is 10 feet thick, lies about 25 feet above the marine beds, and is the same seam worked by the Bowenfels, Eskbank, Lithgow Valley, and Vale of Clwydd Collieries. This seam of coal crops out on the surface on the railway line near Bowenfels. It dips at a low angle of 3 to 5 degrees to the north-east, and is therefore easily worked, and as it passes under the vast extent of mountain ranges to the north and east, it will be inexhaustible for generations to come." The production of coal has increased very rapidly of late years. In 1833, 328 tons were raised, and in 1874, 1,304,567 tons, the value of the last-named year's production being £786,152. Nearly 900,000 tons were exported to the other Australian Colonies and

New Zealand, to China, Japan, and India, Mauritius, New Caledonia, and San Francisco. Several seams of cannel coal have been found, and the produce of two of them is retorted for the manufacture of kerosene oil. Their thickness varies from 2 to 5 feet. The Hartley shale yields 160 gallons of crude oil, or 18,000 cubic feet of gas per ton, with an illuminating power equal to forty candles. The total production of coal to December 31st, 1874, was 12,387,279 tons, of the value of £6,655,328; and of petroleum oil shale 96,141 tons, of the value of £261,414. Sections of the coal seams worked in the northern, western, southern, and Hunter River Coal Fields were exhibited, and also samples from several of the seams of petroleum oil coal.

The weight of gold obtained to the end of 1874 was 8,205,232 ounces, of the value of £30,536,246. Except in some few localities, quartz veins have not been worked to a great depth, and the auriferous resources of the Colony have scarcely been touched. Alluvial lands have in some instances been worked to a depth of 200 feet, and there are the strongest indications of deep leads in various parts where no attempt has been made to work them. Gold-mining, as hitherto carried on, has been principally confined to the working of river beds and shallow alluvial claims. Extensive areas of country are known to be auriferous, and there is still ample scope for the remunerative employment of a large population in both alluvial and quartz mining. The poor success which has often attended the working of quartz veins is largely attributable to ill-judged speculation, inexperience, and the absence of proper ore-separating and other mining appliances. The Rev. W. B. Clarke, referring to a recent visit to the Western district, says that he

"passed over many miles of country in which the rocks that belong to a golden area yet remain in their original condition, and will so remain until some fortunate adventurer stumbles by accident on a tangible encouragement." The approximate area included within the boundaries of proclaimed Gold Fields is 13,650 square miles. Forty-six samples of gold from the Northern, Southern, and Western Gold Fields, specimens of auriferous quartz, and a model representing the total production of gold in New South Wales, were shown in the Exhibition.

The existence of tin in New South Wales was known for many years, but it was not until 1871 that any attempt was made to turn this mineral to account as a marketable commodity. The most extensive deposits of ore have been found in the northern portion of the Colony, but tin has also been discovered in other districts. The value of the tin obtained in 1872 was £47,703, in 1873 the value amounted to £334,436, and in 1874 to £484,322, the total value of the production to that date being £866,461. The ore has hitherto been obtained in the beds of water-courses, and it is separated from the soil by sluicing. In some localities extremely rich deposits of drift tin have been found in the beds of ancient streams, at a depth from 60 to 80 feet below the surface; but it more frequently happens that the overlying soil is only a very few feet in thickness. Valuable lodes or reefs have also been discovered, and in some places crushing machinery has been erected to extract the ore. The profits of tin-mining have been greatly diminished by the reduced price of the metal consequent upon the large additional supply obtained from the Australian fields. The tin-bearing granites of New South Wales belong to the same geological era as those of Derwent and Corn-

wall. Specimens were forwarded to Dr. David Forbes, who stated that they were "perfectly identical with the stanniferous granites of Cornwall, Spain, Portugal, Bolivia, Peru, and Malacca." Warden Buchanan reports that many years will elapse before the ground now being worked will be exhausted, and says that he is convinced that the tin fields open a wide scope for the employment of the labouring classes. The tin ores exhibited in the New South Wales Court were very numerous, and showed all the different forms in which this mineral has been found in the Colony. The approximate area of the tin fields is 6,250 square miles.

There are several lodes of copper in the Colony, but some of the richest are at present beyond the reach of railway communication. Those which have been hitherto worked vary in thickness from 1 to 5 feet. Analyses show that they contain from seven to twenty per cent. of metal, and that the copper is not unfrequently associated with gold, silver, lead, and sulphur. The production of copper has increased in value from £1,400, in 1858, to £156,626, in 1873. The export of copper for the year 1874 was valued at £311,519, but it probably included a portion of the product of South Australian mines sent to Newcastle to be smelted.

Important deposits of iron ore are found in close proximity to coal and limestone in several parts of the Colony. Attempts to make iron at a profitable rate have failed. It is thought, however, that the financial failure of these experiments has arisen from preventable causes, and it is expected that the demand for iron in the Colony will be supplied by metal locally produced. Hæmatite, magnetic, chrome, and other iron ores were shown in the mineral collection. The ore found at

Mittagong, in the Southern district, contains about 66 per cent. of iron. Speaking of the deposits of iron ore at Wallerawang, Professor Liversidge says, "They contain two varieties of iron ore—magnetite, or the magnetic oxide of iron, and the brown hæmatite or goethite—the hydrated oxide; then in addition to these there are deposits of the so-called clay bands which are interstratified with the coal measures. These clay bands are not what are usually known as clay iron ores in England. They are brown hæmatites, var. limonite, while the English clay iron ores are impure carbonates of iron, which seldom contain much more than 30 per cent. of metallic iron, against some 50 per cent. contained by the hæmatites. A highly ferruginous garnet accompanies the veins of magnetite; this garnet is very rich in iron, and it will probably be found advantageous to smelt it with the other ores, not only on account of the large percentage of metal which it contains, but also on account of the increased fluidity it would impart to the slag."

In view of the smallness of the population and its dispersion over a wide area, the manufacturing activity of the people of New South Wales is necessarily confined to articles which can be produced without much subdivision of labour, and for which there is a large demand. The first industries commenced were those which naturally arose out of the conditions of settlement, and were largely dependent upon pastoral and agricultural pursuits for the facility and success with which they could be carried on. Manufactures of this class were the flour mills, wool-washing establishments, and tanneries. With the increase of the people and the multiplication of dwellings there has been a correspond-

ing development in industries connected with building; the requirements of a growing commerce have called into existence extensive engineering and ship-building establishments; and the activity in mining has resulted in the erection of many quartz mills for the extraction of gold, and in the construction of smelting and blast furnaces for the reduction of tin, copper, and iron ores. Manufacturers of leather have attained to a high degree of excellence, and the production of woollen goods may be expected to assume great dimensions. Richly endowed with coal and iron, "the main factors in all recent progress," New South Wales may aspire to a position of manufacturing pre-eminence in the southern hemisphere. There are many skilled artificers in the community competent to construct locomotive engines, steam-ships, and other important works which demand for their production considerable technical ability on the part of the operatives in wood and iron. The principal manufactories at the close of the year 1874 are enumerated in official returns as follows:—Agricultural implements, 45; tobacco, 23; bone manure, 10; sugar, 67; maizena and starch, 1; woollen cloth, 8; soap and candle, 31; tanneries, &c., 114; fellmongers, 35; salting and meat-preserving, 23; boiling-down, 33; wool-washing, 33; steam ditto, 10; glue, 2; distilleries, 49; sugar refineries, 6; breweries, 31; confectionery, 42; spice works, 7; jam, 3; ginger-beer, aerated waters, vinegar, ink, blacking, &c., 99; brick, 282; drain-pipes, 8; lime, 104; pottery, 13; tile works, 11; steam saw-mills, 140; machine manufactories, brass, lead, iron, and tin works, 76; type foundries, 2; account-book, 12; basket, 3; bone-charcoal, 1; bedding, 3; boot, 50; brush, 1; steam cabinet works, 1; chemical, 1; clothing, 17; coach and waggon, 99; comb, 1; fire-works, 1; gas, 10; glass, 3; hat, 12; ice, 4; mast and

block, 2; metallic paint, 1; organ, 1; paper, 1; rope, 6; railway carriage, 3; salt, 1; ship and boat, 103; smelting iron, 5; ditto copper, 9; ditto tin, 11; steam joinery, 4; surgical instruments, 1; wire, 1; window-blind, 1. There has been a fourfold increase in manufacturing industry during the last ten years, while the population of the Colony has only been augmented by less than one-half.

Sydney, the capital of New South Wales, is favourably situated for external commerce, and the development of trade has been more than commensurate with the increase of the people. In 1850, with a population of 265,503, the total value of the import and export trade of the Colony was £4,477,918, while in 1874, a quarter of a century later, after Victoria and Queensland had been separated from the parent Colony, the population had increased to 584,278, and the total trade to £23,639,342, being equal to £40 9s. 2d. per head. The imports for 1874 (the latest year in respect of which the compiler of this report has access to official Customs returns) were £11,293,739, or at the rate of £19 15s. 11¼d., and the exports, £12,345,603, at the rate of £21 12s. 9¾d. per head of the estimated population at the middle of the year. The imports of the last decennial period amounted to £87,229,173, and the exports to £78,270,358. The aggregate real value of the trade was thus—£165,499,531; but, large as these figures are in comparison with the population, they do not express the total value of the commerce of New South Wales, especially not of her exports, for during three of the years included in the decennial period no record was kept of the overland export trade to Victoria, the value of which during the portion of 1874 of which account was taken amounted

to nearly £3,000,000 sterling. Of the total trade of the ten years ending 1874, which in round numbers may be set down at £165,500,000 sterling, £151,906,364 is the value of the commodities exchanged between New South Wales, on the one hand, and the United Kingdom, the Australian Colonies, and other British dependencies, on the other. During that period the Colony purchased goods from Great Britain to the value of £36,317,960, and she supplied the manufacturers of the parent country with wool and other commodities amounting in value to £40,539,604. The total recorded value of articles, the produce or manufacture of New South Wales, exported during the decennial period was £56,047,961. The actual value was considerably more, but from the incompleteness of the Customs records already referred to it is not easily ascertained.

The maritime interests of New South Wales, as indicated by the tonnage of the ships built and owned by her merchants, is greater than that of any other Australian Colony. The tonnage of ships built to the end of 1874 was 82,294, and of ships registered 101,008. Of the vessels owned in the Colony, 131 are propelled by steam. The number of ships which entered the ports of New South Wales in 1874 was 2,217, of the aggregate tonnage of 1,016,369; the outward-bound ships numbering 2,168, and having a total tonnage of 974,525.

Much of the internal commerce of the country converges upon the three principal lines of railway, which have been constructed by the Government and are managed under their direction. The Northern line starts from Newcastle, and runs through the adjacent coal fields, and up the fertile valley of the Hunter to Murrurundi. The traffic of the Western and Southern roads centres upon

Sydney. Diverging at Parramatta, the lines are each carried across the Nepean upon stone viaducts of colossal proportions; and while the Western road runs over the mountain range, which it ascends near Penrith and descends near Bowenfels by massive and ingenious engineering works, the Southern intersects the Dividing Range through a steep pass near Mittagong. Each of these roads runs through country abounding in iron, coal, and other minerals; and in some portions of their course through extensive tracts of land well adapted for fruit-growing and general farming purposes. Bathurst and Goulburn are the principal towns in the Western and Southern interior, and they are situated on the verge of valuable pastoral and agricultural country. By the end of 1876 the Northern line will have been completed to Quirindi (148 miles), the Western to Blaney (175 miles), and the Southern to Murrumburrah (230 miles), making the total length of the railways opened for traffic 553 miles. Contracts for additional lengths have been taken; and it is the policy of the Government to extend their railways as fast as the difficulty in obtaining labour will permit, until the lines reach the northern, western, and south-western boundaries of the Colony. The average number of miles of railway open for traffic during 1874 was 398, the number of passengers carried was 1,539,044, and the tonnage of merchandise 1,076,068.

The electric telegraphs of the Colony were also constructed by the Government, and are managed by them. Every township of any trading importance has the advantage of telegraphic communication with the rest of the world, and there are also several stations on the coast used in connection with the system of storm signals and for other maritime purposes. The cost of

sending a telegram of ten words between any two places in the Colony, however remote from each other they may be, is one shilling. There have been more than 8,000 miles of line constructed, and the number of telegrams forwarded from the 137 stations open in 1875 was 719,145. Telegraphic communication with the various towns in the other Australian Colonies is equally available, and almost equally cheap. The line constructed through the centre of the continent to Port Darwin by the Government of South Australia, affords the means of telegraphic communication with India and Europe; and the Governments of New South Wales and New Zealand have, by the payment of annual subsidies, procured the laying of a submarine cable connecting the two Colonies, which has been in successful operation during a large part of 1876.

Postal facilities are still more widely extended. In 1875 there were 752 post-offices; the mileage travelled by the postal conveyances was 3,787,757, over routes having an aggregate length of 17,670 miles. The postage on inland letters is 2d. the ½ oz., and newspapers are carried without charge. The number of letters carried during 1875 was 13,717,900; of newspapers, 6,262,600; and of packets, 357,000. Three separate lines of mail steamships give regular and frequent communication with the United Kingdom; the service by way of San Francisco being subsidised by the Governments of New South Wales and New Zealand, that by way of Torres Straits by Queensland, and that by way of Galle by Victoria.

There were ten Banking Companies carrying on business in New South Wales during the last quarter of 1874. Their total liabilities were £13,206,359, and their assets £17,030,320. Their liabilities were—notes in

circulation, £1,053,108; bills in circulation, £36,792; balances due to other Banks, £231,499; and deposits, £11,884,957. Their assets were—coin, £2,351,693; bullion, £255,960; landed property, £324,171; notes and bills of other Banks, £45,453; balances due from other Banks, £3,367,791; notes and bills discounted, and all other debts due, £10,685,250. Their paid-up capital amounted to £7,894,656; the amount of their dividend for the year, £485,719; and of their reserved profits at the time of declaring such dividends, £2,346,730. The amounts at the credit of 37,606 persons in the Savings' Banks of the Colony, on the 31st of December, 1874, was £1,579,015, or at the rate of nearly £42 to each depositor. The amount of coin and bullion held by the Banks and the Mint on the 31st of December, 1874, was £2,522,533, and the total amount coined at the Sydney Branch of the Royal Mint up to that date was £35,857,000.

The wages of carpenters, smiths, wheelwrights, bricklayers, masons, and most other skilled workmen has, during the last ten years, ranged from 8s. to 12s. per diem of eight hours. For farm labourers, £30 to £35 a year with board and lodging is the average wage, and the earnings of domestic servants vary from £26 to £40. The average prices of the following commodities during 1874 were—wheat, 5s. 6d. to 6s. 6d. per bushel; bread (first quality), 1¾d. to 2d. per lb.; flour (first quality), 1½d. to 1¾d. per lb.; rice, 2¾d. to 3d. per lb.; tea, 1s. 2d. to 2s. 6d. per lb.; sugar, 3½d. to 4½d. per lb.; fresh meat, 3½d. to 4½d. per lb.; fresh butter, 1s. 7d. per lb.; cheese, 6d. per lb.; potatoes, 4s. to 5s. 6d. per cwt.; soap, 2¾d. per lb. These are the prices for Sydney. Of the whole Colony, it may be affirmed that work is easily to be obtained, that wages are generally high, and that the cost of living is almost uniformly cheap.

The forms of Parliamentary and municipal government have been modelled on those of England, and it is the aim of colonial statesmen to keep representative government in New South Wales in harmony with the spirit as well as the procedure of the House of Commons. Justice is impartially administered throughout the country; and public schools, chiefly supported by Parliamentary appropriations, are also general. In the alienation of the waste lands it has been the policy of Parliament to facilitate the acquisition of homesteads by persons of small means who desire to settle on the soil for agricultural or mining purposes, land not so required being left in the occupation of the pastoral settlers at a nominal rental. The total area of land alienated prior to 1874 was less than 20,000,000 acres, leaving upwards of 180,000,000 acres which may still be purchased, excepting such portions as have been reserved for the preservation of timber and other public uses. The upset price of land is £1 per acre, and that also is its absolute price when taken up for agricultural operations under conditional purchase. It is competent for any person over sixteen years of age to select any unsold and unreserved Government land, either before or after survey, in a block of not less than 40 acres nor more than 640 acres, upon the payment of 5s. per acre, the balance of the purchase money to be paid at the expiration of three years, in instalments of not less than 1s. per acre per annum; these instalments being in liquidation of the interest at 5 per cent., as well as in payment of the principal sum. The land is sold under conditions of residence and improvement by the purchaser. Mineral lands may be leased from the Government at the annual rental of 5s. per acre for a term of twenty years, renewable at the option of the lessee, or they may be

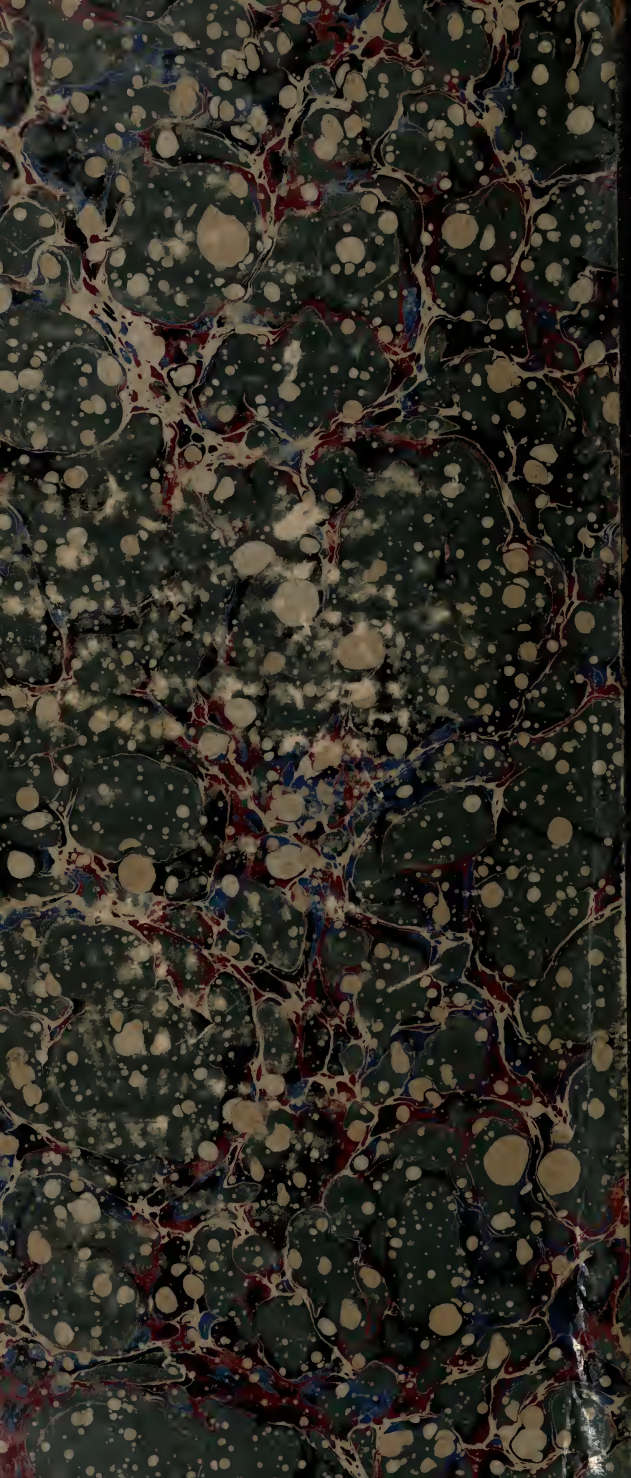
bought at £2 per acre, the purchaser covenanting to spend a like amount in improvements within three years.

The revenue of the Colony for the year 1874 amounted to £3,509,966, the rate per head of taxation being £2 1s. 8d. The principal sources of revenue were the Customs, which yielded £951,233; the sale, rent, and interest of land, £1,426,166; and railway and postal receipts, £635,722. The Customs tariff consists wholly of specific duties levied upon fifty-five articles, and New South Wales imposes less restriction upon trade than exists under the fiscal system of any other Australian Colony. The public debt amounted to £10,516,371 on the 31st of December, 1874, being at the rate of £17 19s. 11d. per head of the population. This indebtedness was incurred for the construction of railways, electric telegraphs, breakwaters, and other public improvements. Of these the railways and the telegraphs are largely reproductive, and it is expected that they will eventually return a profit upon the capital borrowed for their construction.

Subjoined is an enumeration of the principal articles forwarded to the International Exhibition. The Commissioners are aware that the difficulties attending a complete representation of the products of the soil and mine, and of the arts and industries of New South Wales, were not fully overcome in the display which was made on the part of the Colony in the International Exhibition which has just been closed. While untoward circumstances, other than those inseparable from the transportation of goods for a distance of 12,000 miles by a route which involved five transhipments, combined to prevent the full realisation of their aims, still they feel that the liberality of the Parliament and the public spirit

of individual exhibitors enabled them to present in a suitable manner a view of the great wealth of the country in coal, iron, tin, copper, gold, and other mineral products; to show the capability of its pastures for the production of fine wool; and to exhibit the fertility of its soil and the great range of its climate, as exemplified by the unequalled collection of forest woods, the samples of fruit, wheat, maize, wine, sugar, and other products of temperate and semi-tropical zones. They are very sensible of the appreciation and interest manifested by visitors to the Exhibition—and by none more than by the American people—in the progress of Australian colonisation; and they have not been unobservant of the material advantages which may spring from the more intimate relations into which the United States and Australia have been brought. They have, however, derived especial gratification from the association of New South Wales with the other dependencies of Great Britain which have co-operated with the parent country at the celebration of the one hundredth anniversary of American Independence; and they trust that the unity which has existed at this representative gathering of the nations will be influential in intensifying those sentiments of loyalty and affection which happily exist between the United Kingdom and her Colonies, and in binding together in enduring concord all the widely separated portions of the Empire.

CHARLES ROBINSON,

December, 1876. Secretary.

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